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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,712	03/09/2004	Eric Sprunk	D03043	2860
43471	7590	09/01/2009		
Motorola, Inc. Law Department 1303 East Algonquin Road 3rd Floor Schaumburg, IL 60196			EXAMINER HENNING, MATTHEW T	
			ART UNIT	PAPER NUMBER
			2431	
			NOTIFICATION DATE	DELIVERY MODE
			09/01/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

### Office Action Summary

**Application No.**

10/796,712

**Applicant(s)**

SPRUNK ET AL.

**Examiner**

MATTHEW T. HENNING

**Art Unit**

2431

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

This action is in response to the communication filed on 6/23/2009.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/23/2009 has been entered.

***Response to Arguments***

Applicant's arguments with respect to claims 1-43 have been considered but are moot in view of the new ground(s) of rejection.

All objections and rejections not set forth below have been withdrawn.

Claims 1-43 have been examined.

***Claim Objections***

Claims 15 and 20-22 are objected to because of the following informalities: The claims recite the limitation "said set of data" which lacks antecedent basis in the claims. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless –*

1           (b) the invention was patented or described in a printed publication in this or a foreign  
2 country or in public use or on sale in this country, more than one year prior to the date of  
3 application for patent in the United States.  
4

5           Claims 1, 3, 5-14, 16, 17, 19-21, 23, 31-37, 40, 42, and 43 are rejected under 35  
6 U.S.C. 102(b) as being anticipated by Marolia et al. (US Patent Number 7,480,907) hereinafter  
7 referred to as Marolia.

8           Regarding claims 1 and 23, Marolia disclosed a method of authenticating a set of N  
9 information blocks, said method comprising: obtaining an initial root key for a set of data  
10 comprised of a plurality of blocks of data, said root key operable for authenticating said set of  
11 data; calculating hash keys for said plurality of blocks of data so that each of said hash keys  
12 corresponds to only one of said blocks of data and so that each of said blocks of data corresponds  
13 to only one of said hash keys; storing said hash keys for said plurality of blocks of data; altering  
14 one of said blocks of data so as to form a revised block of data; calculating a second hash key for  
15 said revised block of data, wherein said revised block of data immediately prior to being revised  
16 corresponds to a first hash key and wherein said first hash key is one of said hash keys for said  
17 plurality of blocks of data; utilizing said stored hash keys, including said first hash key, to  
18 calculate a check root key while utilizing said stored hash keys and said second hash key  
19 substituted in place of said first hash key to calculate a new root key; comparing said check root  
20 key with said initial root key; accepting said new root key if said check root key matches said  
21 initial root key (Marolia Col. 13 Lines 4-23).  
22

23           Regarding claim 3, Marolia disclosed calculating said revised hash value while  
24 calculating said check hash value comprises: hashing said altered block of data so as to obtain a

first hashing result; storing said first hashing result in a processor; and then hashing the corresponding unaltered block of data so as to obtain a second hashing result (Marolia Col. 13 Lines 4-23).

Regarding claim 5, Marolia disclosed that calculating said revised hash value while calculating said check hash value comprises: utilizing a single processor to calculate said revised hash value and to calculate said check hash value (Marolia Col. 13 Lines 4-23 Update Agent).

Regarding claim 6, Marolia disclosed performing a linear hash of said set of data by hashing said N blocks of data in sequential order from block 1 to block N (Marolia Col. 12 Lines 35-39).

Regarding claim 7, Marolia disclosed hashing each of said N information blocks in said set of N information blocks (Marolia Col. 13 Lines 4-23).

Regarding claim 8, Marolia disclosed storing said initial hash value in a processor (Marolia Col. 13 Lines 4-23).

Regarding claim 9, Marolia disclosed storing a new value for at least part of one of said N information groups (Marolia Col. 13 Lines 4-23).

Regarding claims 10 and 35, Marolia disclosed determining whether said check hash value and said initial hash value are exactly the same (Marolia Col. 13 Lines 4-23).

Regarding claims 11 and 36, Marolia disclosed replacing said initial hash value with said revised hash value (Marolia Col. 13 Lines 4-23).

Regarding claims 12 and 37, Marolia disclosed storing the new revised hash value in the

memory area previously occupied by the initial hash value (Marolia Col. 13 Lines 24-34).

Regarding claim 13, Marolia disclosed not accepting said revised hash value as a replacement for said initial hash value if said check hash value does not match said initial hash value (Marolia Col. 5 Lines 38-58).

Regarding claim 14, Marolia disclosed indicating a failure to authenticate (Marolia Col. 5 Lines 38-58).

Regarding claim 16, Marolia disclosed replacing said initial hash value with said revised hash value (Marolia Col. 13 Lines 24-34).

Regarding claims 17 and 40, Marolia disclosed receiving as part of an initialization routine a length of a data set to be hashed, wherein said data set is comprised of said N information groups (Marolia Col. 13 Lines 4-23).

Regarding claims 19 and 42, Marolia disclosed initializing a processor so as to perform a hashing routine (Marolia Col. 13 Lines 4-23).

Regarding claim 20, Marolia disclosed initializing a hashing routine by entering the length of said set of data (Marolia Col. 13 Lines 4-23).

Regarding claims 21 and 43, Marolia disclosed dividing the set of data into a plurality of blocks (Marolia Col. 13 Lines 4-23).

Regarding claim 31, Marolia disclosed encrypting said hash keys for said plurality of blocks; and storing said encrypted hash keys in memory outside of a processor (Marolia Col. 9 Lines 25-27).

Regarding claim 32, Marolia disclosed storing said hash keys for said plurality of blocks

in a processor (Marolia Col. 13 Lines 4-23).

Regarding claim 33, Marolia disclosed storing said root key inside a processor (Marolia Col. 13 Lines 4-23).

Regarding claim 34, Marolia disclosed storing a new value for at least part of one of said information groups (Marolia Col. 13 Lines 4-23).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

Claims 2, 4, 18, 22, 24, 28, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marolia. While Marolia did not specifically disclose parallel processing, it was well known that processing can be accomplished concurrently in order to save time and therefore would have been obvious to have done so. Furthermore, Marolia did not specifically teach padding at least one of the information blocks such that all the blocks were of the same length. However, it was well known to pad blocks when performing a hash operation such that the blocks are the proper length for the hash operation. Therefore, it would have been obvious to the ordinary person skilled in the art to have done so.

Claims 15, 25-27, 29-30, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marolia, and further in view of Sprunk et al. (US Patent Number 5,754,659) hereinafter referred to as Sprunk.

While Marolia disclose a method for updating a hash for a file when a record in the file is altered, Marolia failed to disclose the use of a branch key in the hashing system, or that the system was used for signing digital media rights data.

Sprunk teaches an efficient hashing method including the limitations of claims 25-30, and further teaches that the hashing system can be used to sign access right data (See Sprunk Col. 6 Line 50 – Col. 11 Line 14).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Sprunk in the signature system Marolia. This would have been obvious because the ordinary person would have been motivated to increase the efficiency of the system.

#### ***Conclusion***

Claims 1-43 have been rejected.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW T. HENNING whose telephone number is (571)272-3790. The examiner can normally be reached on M-F 8-4.



1           If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
2 supervisor, William Korzuch can be reached on (571)272-7589. The fax phone number for the  
3 organization where this application or proceeding is assigned is 571-273-8300.

4           Information regarding the status of an application may be obtained from the Patent  
5 Application Information Retrieval (PAIR) system. Status information for published applications  
6 may be obtained from either Private PAIR or Public PAIR. Status information for unpublished  
7 applications is available through Private PAIR only. For more information about the PAIR  
8 system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR  
9 system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would  
10 like assistance from a USPTO Customer Service Representative or access to the automated  
11 information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

12  
13  
14 /Matthew T Henning/  
15 Examiner, Art Unit 2431  
16